

CLAIMS

What is claimed is:

5        1. A bearing assembly having at least two bearing elements spaced by a first body, the first body having means for flexing.

2. A bearing assembly as claimed in claim 1, wherein, in use, when a load is applied to the bearing assembly the first body is caused to flex.

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3. (Amended) A bearing assembly as claimed in claim 1, wherein the flexing means comprise at least one groove or notch formed on the first body.

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4. (Amended) A bearing assembly as claimed in claim 3, wherein the first body is substantially annular in shape, the at least one groove being formed on an outer surface of the first body.

5. (Amended) A bearing assembly as claimed in claim 4, wherein the groove is substantially U-shaped.

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6. (Amended) A bearing assembly as claimed in claim 5, wherein the first body is rigidly mounted to a body to which load is applied, in use.

7. (Amended) A bearing assembly as claimed in claim 5, wherein a first annular surface of the first body is provided with a first annular raceway.

8. A bearing assembly as claimed in claim 7, wherein a second annular surface of the first body is provided with a second annular raceway.

9. A bearing assembly as claimed in claim 8, wherein the first and second bearing elements each comprise a plurality of balls, the first and second bearing elements being received for movement within the first and second annular raceways of the first body.

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10. (Amended) A bearing assembly as claimed in claim 6, wherein the means for flexing flexes about a longitudinal axis of the first body.

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11. (Amended) A bearing assembly as claimed in claim 10, wherein the groove is provided substantially circumferentially around the first body.

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12. (Amended) A bearing assembly as in claim 1, wherein the means for flexing comprises a circumferential groove about the first body of sufficient depth so that the first body is at least partly flexible under thrust load.

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13. (Amended) A bearing unit comprising a plurality of bearing assemblies according to claim 5.
14. A bearing unit as claimed in claim 13, wherein adjacent bearing assemblies are spaced by a second body. 5
15. A bearing unit as claimed in claim 14, wherein the second body is substantially annular in shape.
- 10 16. (Amended) A bearing unit as claimed in claim 15, wherein the second body is rigidly mounted to a further body to which load is not directly applied in use.
- 15 17. (Amended) A bearing unit as claimed in claim 14, wherein a first annular surface of the second body is provided with a first annular raceway.
18. A bearing unit as claimed in claim 17, wherein a second annular surface of the second body is provided with a second annular raceway.
19. A bearing unit as claimed in claim 18, wherein respective first and second bearing elements 20 are received for movement within the first and second annular raceways of the second body.

20. (Amended) A bearing unit as claimed in claim 19, wherein adjacent first bodies are spaced by a respective first spacer element.
- 5        21. (Amended) A bearing unit as claimed in claim 19, wherein adjacent second bodies are spaced by a respective second spacer element.
22. (Amended) A bearing unit as claimed in claim 19, wherein a further first spacer is provided between an end to which force is applied, in use and an adjacent end of an adjacent first body.
- 10      23. (Amended) An apparatus including a bearing assembly according to 5.
24. (Amended) An apparatus including a bearing unit according to claim 19.
- 15      25. (Amended) An apparatus as claimed in claim 24, for use in a borehole of an oil well or gas well.
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26. (Amended) An apparatus as claimed in claim 25, further comprising a down-hole motor.

27. (Amended) An apparatus as claimed in claim 25, wherein the first body is rigidly mounted to a shaft to which load is applied, in use.

5 28. (Amended) An apparatus as claimed in claim 27, wherein the shaft is contained substantially concentrically within the bearing unit.

29. (Amended) An apparatus as claimed in claim 25, wherein the second body is rigidly mounted to a housing.

10 30. (Amended) An apparatus as claimed in claim 29, wherein the housing substantially concentrically surrounds the bearing unit.

31. (Amended) An apparatus as claimed in claim 25 wherein adjacent first bodies are longitudinally spaced by a first spacer element.

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32. (Amended) An apparatus as claimed in claim 31 wherein the first spacer element is mounted on the shaft.

20 33. (Amended) An apparatus as claimed in claim 25, wherein adjacent second bodies are longitudinally spaced by a

second spacer element.

34. (Amended) An apparatus as claimed in claim 33, wherein the second spacer element is mounted on the housing.